absorbing at least a portion of the sulfur dioxide into the liquid stream;

reacting at least a portion of the sulfur dioxide with at least a portion of the sodium sulfite to produce a sodium metabisulfite stream;

evaporating at least a portion of the water from the liquid stream into the gas stream;

precipitating sodium metabisulfite from the sodium metabisulfite stream in a crystallizer; and

withdrawing a slurry of sodium metabisulfite from the bottom of the crystallizer[[.]], wherein the column and the crystallizer are operated at substantially the same temperature.

34. (Original) The method of claim 33 further comprising agitating a slurry of precipitated sodium metabisulfite with a supernatant.

35. (Original) The method of claim 34 further comprising withdrawing a portion of the supernatant and adding a sodium alkali to at least a portion of the withdrawn supernatant to react with at least a portion of the sodium metabisulfite contained in the supernatant to produce sodium sulfite.

36. (Original) The method of claim 35 further comprising transferring the gas stream containing unreacted sulfur dioxide from the column and introducing it into a scrubber and removing a substantial portion of the unreacted sulfur dioxide.

37. (Original) The method of claim 36 wherein the sodium metabisulfite stream and the supernatant are maintained at about the same pH.

38. (Cancelled)

39. (Currently Amended) The method of claim [[38]] 33 wherein the temperature is at least 25°C.

40. (Original) The method of claim 39 wherein the pH is maintained between 4.0 and 5.0.

41. (Original) The method of claim 40 wherein the precipitated sodium metabisulfite has a purity of at least 98 %.

42. (Original) The method of claim ~~38~~ 33 wherein the precipitated sodium metabisulfite has a D_{50} of at least 180 microns.

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43. (Original) The method of claim ~~38~~ 33 wherein the temperature is at least 25°C, the pH is maintained between 4.0 and 5.0, the sodium metabisulfite has a D_{50} of at least 180 microns and a purity of at least 98 %.

44. (Original) The method of claim 43 wherein the temperature is at least 50°C, the pH is maintained between 4.3 and 4.8.

45. (Original) The method of claim 44 wherein the temperature is at least 70°C, the sodium metabisulfite has a D_{50} of at least 300 microns.

46. (Original) A system for precipitating salts comprising:

a column having at least one internal element;

a crystallizer in communication with the column;

a recirculation system in communication with the crystallizer and the column;

a mixing slurry tank in communication with the recirculation system and the column;

at least one gas outlet positioned in the column;

at least one salt outlet positioned in the crystallizer;

a slurry of salt contained in the crystallizer having a substantially uniform pH;

a liquid stream having a first reactant flowing substantially downwardly within the column;

a gas stream having a second reactant flowing in the column and substantially countercurrently against the liquid stream;

a first feed inlet in communication with the column supplying the first reactant; and

a second feed inlet in communication with the mixing slurry tank supplying a third reactant.

47. (Original) The system of claim 46 wherein the salt is sodium metabisulfite, the first reactant is sodium sulfite, the second reactant is sulfur dioxide and the third reactant is a sodium alkali.